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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,911	03/13/2002	Florence L'Alloret	220758USOPCT	2979

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EXAMINER

FUBARA, BLESSING M

ART UNIT	PAPER NUMBER
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1618

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/070,911

Applicant(s)

L'ALLORET ET AL.

Examiner

Blessing M. Fubara

Art Unit

1618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-69 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 34-69 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/4/06.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Examiner acknowledges receipt of request for extension of time, amendment, remarks and request for reconsideration, all filed 7/17/06. Receipt of IDS filed 4/04/2006. Claim 37 is amended. Claims 34-69 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 34 is directed to a composition comprising an aqueous phase where the aqueous phase comprises at least one compound with an optical effect and a polymer comprising water soluble units and units having lower critical solution temperature (LCST); the polymer is a block comprising water soluble units alternating with LCST units or the polymer is a graft having water soluble unit and LCST units in the backbone. Dependent claim 40 defines the water soluble units to comprise of (meth)acrylate or vinyl monomers of formula $H_2C=CR-C=O(X)$, with R, X as defined therein and the prior art only has to disclose one of the varied and various monomers listed in claim 40 that is capable of forming the polymer; dependent claim 41 defines the water soluble polymer as one of water soluble polyurethane, xanthan gum, alginates or derivatives, cellulose derivatives, galactomannans and polyethyleneimine and the prior art only has to disclose one of the varied and various water soluble units listed in claim 41. The LCST is a polyether or polyvinyl methyl ether or polymeric N-substituted acrylamide derivatives

Art Unit: 1618

containing units with LCST or copolymeric N-substituted acrylamide derivatives containing units with LCST or polyvinylcaprolactam and vinylcaprolactam (claim 43) and the prior art only has to disclose one of the LCST listed in claim 43. The LCST is further limited by claims 47 and 49 and the prior art only has to disclose one of the LCST listed in claims 47 and one of the LCST listed in claim 49. The method of the method claims 62 and 63 is directed to combining the various components of the claimed composition. A prior art that discloses the claimed composition would meet the method claims because the process of making the composition combines the various components of the composition to make the composition just as the combining steps in these claims. The comprising language of the claims is open and the claims contemplate varied and many monomers and polymers as the LCST and as the water-soluble polymers. No specific combination of LCST and water-soluble polymers is claimed.

3. Claims 34-69 are rejected under 35 U.S.C. 102(b) as being anticipated by Torgerson et al. (US 5,730,966).

Torgerson discloses compositions comprising water or alcohol soluble thermoplastic elastomeric copolymers and Torgerson's intended uses for the composition are topical application to the skin, application to the hair for styling and as cosmetic (abstract). The polymer comprises repeating units of A and B polymerizable monomers (column 2, lines 61-65), monomer A is as described in column 3, lines 1-16) and monomer B is as described in column 3, lines 17-64). The A and B monomers are related as copolymers in the polymeric composition of Torgersen and the molecular weight of the copolymer is in the range of 10,00 to 5,000,000 (column 6, lines 5-17). The structural formula for the A-monomers in column 7 of Torgerson meets the structural formula of the monomer in claim 40 (b) and 47 (b) when, e.g. R^4 is H, X is –

Art Unit: 1618

OH, -OR, -NH₂, -NHR⁴, and R⁵ is H and C₁-C₃ (column 8, lines 16-67) and the specific A-monomers listed in column 8, line 16-67 meet the limitations of the water soluble polymers; specifically, since claims 47 and 49 list the vinyl monomers as an LCST, the Torgerson structure in column 7 when, e.g. R⁴ is H, X is -OH, -OR, -NH₂, -NHR⁴, and R⁵ is H and C₁-C₃ also meets the limitation of the LCST recited in claims 47 and 49, and the implication of claims 47 and 49 is that in some embodiments, the LCST can be the water soluble unit and the water soluble unit can be the LCST. The N-vinylpyrrolidones, N-vinylcaprolactams (column 10, lines 13-46) and the monomer/polymer units listed in column 9, line 1 to column 13 line 27 are the B-monomers meeting the limitation of LCST of claims 43 and 44. Propylene glycol, ethylene glycol, acrylates, caprolactones and imidazoles are disclosed as monomers (columns 3-11). The recitation of heat induced de-mixing temperature in aqueous solution is a property of the LCST and since a compound and its properties are mutually exclusive, the LCST of the prior art that is the same as that claimed would necessarily have the same property under the proposed recited conditions. "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, Torgerson anticipates the claims 42, 45, 46, 48 and 50 that recite the properties of the monomers/polymers. The B monomer/polymer of Torgerson, which is the same as the claimed LCST is present at about 15-50% and meets the limitation of claims 51-53. The concentration of the polymer in Examples XVI-XVIII of Torgerson is 2% in the aqueous and thus meets the limitations of claims 54 and 55. The sunscreen agents and skin lightening agents (column 18,

Art Unit: 1618

lines 13-67) contained in the formulation of Torgerson meets the limitation of compound with optical effect. The method steps of claims 62 and 63 are met by the mixing and combining of the components of the formulation by the method by which the formulation is prepared in Torgerson (see at least Examples XVI-XVIII). Regarding claims 64-65, the broad humidity range of from 40-95 and the room temperature of 25 °C fall within the normal humidity and temperature of any typical day. The formulation of Torgerson can be oil-in-water emulsion and contains oily phase, surfactants, emulsifiers, celluloses and xanthan gums as gelling agents (column 19, line 64; column 22, line 55; column 23, lines 45-54), dimethicone in Example XV is an oil and the formulation can be applied to the skin or hair and thus meets the limitations of claims 67-69 and since the formulation of Torgerson is the same as the claimed formulation, application of the formulation to hair or skin would necessarily have the same effect.

“When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Response to Arguments

4. Applicant's arguments filed 7/17/06 have been fully considered but they are not persuasive.

Applicant argues:

a) The prior art does not describe, “with sufficient specificity” how monomers of a polymer of a composition are selected, the polymer is a block polymer comprising water-soluble blocks alternating with LCST blocks or graft polymer whose backbone is formed from water soluble units and bears LCST grafts. That there is no description in the

Art Unit: 1618

Office action how the possible combinations of the A and B monomers are arranged as a block or graft polymer as defined in the claims.

Response

Claim 34 requires a block or graft polymer. Torgerson discloses graft copolymers of the structure $[A]_a[B]_b$ (column 4, lines 60 and 63; column 5, lines 18-26), therefore no specific selection to arrange the A and B polymers is necessary since the prior art discloses graft copolymer. Furthermore, claim 34 is generic to either a broad block copolymer having water soluble-soluble units alternate with LCST units, or broad graft polymer whose backbone is formed from water-soluble units that bear LCST grafts. The Torgerson reference discloses graft copolymers where the A units as described above are the water-soluble polymers and the B units meet the limitation of LCST. Secondly, claim 40 lists many components that make up the water-soluble units of the claimed copolymer; claim 43 lists a number of polymers that are LCST. The monomers of Torgerson meet the limitations of the monomers recited in claims 40 and 43. Thus, there is no picking and choosing since graft polymer is disclosed and since the disclosed monomers meet the broad limitations of the claims.

b) Applicant states that it was argued in the Appeal Brief, that the first option in claim 34 is a block copolymer with alternating units and that the grafted polymers of Torgerson are clearly different, that the graft polymer described in Torgerson differs from the second option where the graft polymer is a water-soluble backbone with LCST grafts, that while Torgerson discloses copolymer, which is defined as a water or alcohol soluble thermoplastic elastomer having a backbone and two or more side chains (a.k.a. grafts), Torgerson does not disclose block copolymer of random A and B units as claimed, that the disclosure of Torgerson would not result

Art Unit: 1618

in block copolymers of the type claimed. That the B units of Torgerson are hydrophilic and that the rationale that LCST and the water-soluble units are interchangeable is misplaced.

Response:

The prior art can disclose a graft or block copolymer to meet the copolymer requirement of claim 34. In this case, and as admitted by applicant, Torgerson discloses water or alcohol soluble thermoplastic elastomer having a backbone and two or more side chains (a.k.a. grafts). Thus Torgerson does not have to disclose block copolymer to meet claim 34. Torgerson meets claim 34 by disclosing graft polymer. As described in the rejection, the A polymers described in column 7 meet the limitations of the monomers recited in claims 40 (b) and 47 (b) and the specific monomers listed in column 8, lines 16-67 meet the limitations of the water soluble polymers of claim 47 and 49. Monomer A is also described in column 3, lines 1-16. Monomer B is described in column 3, lines 17-64. Also, the Torgerson structure in column 7 when, e.g. R^4 is H, X is -OH, -OR, -NH₂, -NHR⁴, and R⁵ is H and C₁-C₃ also meets the limitation of the LCST recited in claims 47 and 49, and the implication of claims 47 and 49 is that in some embodiments, the LCST can be the water soluble unit and the water soluble unit can be the LCST. The N-vinylpyrrolidones, N-vinylcaprolactams (column 10, lines 13-46) and the monomer/polymer units listed in column 9, line 1 to column 13 line 27 are the B-monomers meeting the limitation of LCST of claims 43 and 44. Propylene glycol, ethylene glycol, acrylates, caprolactones and imidazoles are disclosed as monomers (columns 3-11). Therefore, because the grafted portion having LCST polymer meet the limitation of the claims where the grafted unit is LCST, the prior art discloses the LCST. Therefore, it is not misplaced to say that Torgerson's polymers meet the limitations of the polymers recited considering that claims 47 and

Art Unit: 1618

49 list vinyl monomers as LCST, and Torgerson in column 7, lists polymers with R⁴ is H, X is – OH, –OR, –NH₂, –NHR⁴, and R⁵ is H and C₁–C₃ meeting the limitations of the polymers of claims 47 and 49.

5. The rejection of claims 34 and 41 under 35 U.S.C. 102(b) as being anticipated by Schmitt et al. (US 5,412,035) is withdrawn because the intervening claim 37 is not included in the rejection.

Response to Arguments

6. Applicant's arguments filed 7/17/06 with respect to the rejection of claims 34 and 41 as being anticipated by Schmitt is now moot in view of the withdrawal of the rejection. Therefore, a response to applicant's argument is not provided.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

8. The rejection of claims 37 and 41 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn in view of the amendment to claim 37.

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined

Art Unit: 1618

application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The provisional double patenting rejection over application 10/197,560 was maintained in the last Office action because the formulation contains sun block screening agents and these agents have optical effect (see at least claims 83-85, 89 and 98 for the at least one compound with an optical effect). Applicants have not argued this rejection. This rejection is not held in abeyance.

The rejection is directed to the current claims:

Claims 34, 37, 38, 40, 41, 43, 47 and 49 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 53, 55-59, 62, 63, 71, 72, 83-85, 89 and 98 of copending Application No. 10/197,560. Although the conflicting claims are not identical, they are not patentably distinct from each other because the co-pending claim 53 is a cosmetic composition that comprises same polymers as that claimed in the examined application. The 70% in co-pending claim 53 refers to the block A relative to the total weight of the diblock polymer and the 1% to 2% in examined claim 34 refers to the concentration of the polymer on which the de-mixing temperature is determined. The artisan

Art Unit: 1618

would be able to determine how much of A is present relative to the total weight of the block and the de-mixing temperature is a property of the LCST.

Response to Arguments

10. Applicants' arguments filed 12/07/05 have been fully considered but they are not persuasive.

Applicant acknowledges the provisional obviousness type double patenting over application 10/197,560 and requests the rejection to be held in abeyance since the "alleged conflicting claims have not yet been patented." MPEP 804 [R-3], I B states that the "provisional" double patenting rejection should continue to be made by the examiner in each application as long as there are conflicting claims in more than one application unless that "provisional" double patenting rejection is the only rejection remaining in at least one of the applications.

If a "provisional" nonstatutory obviousness-type double patenting (ODP) rejection is the only rejection remaining in the earlier filed of the two pending applications, while the later-filed application is rejectable on other grounds, the examiner should withdraw that rejection and permit the earlier-filed application to issue as a patent without a terminal disclaimer. If the ODP rejection is the only rejection remaining in the later-filed application, while the earlier-filed application is rejectable on other grounds, a terminal disclaimer must be required in the later-filed application before the rejection can be withdrawn.

If "provisional" ODP rejections in two applications are the only rejections remaining in those applications, the examiner should withdraw the ODP rejection in the earlier filed

Art Unit: 1618

application thereby permitting that application to issue without need of a terminal disclaimer. A terminal disclaimer must be required in the later-filed application before the ODP rejection can be withdrawn and the application permitted to issue. If both applications are filed on the same day, the examiner should determine which application claims the base invention and which application claims the improvement (added limitations). The ODP rejection in the base application can be withdrawn without a terminal disclaimer, while the ODP rejection in the improvement application cannot be withdrawn without a terminal disclaimer.

In the instant examined application, the ODP rejection is not the only rejection pending.

No claim is allowed.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

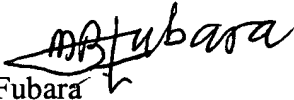
Art Unit: 1618

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blessing M. Fubara whose telephone number is (571) 272-0594.

The examiner can normally be reached on 7 a.m. to 5:30 p.m. (Monday to Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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